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M. Sherrill
Michael S. Sherrill

AF/3618
FA

TRANSMITTAL LETTER (PENDING UNITED STATES PATENT APPLICATION)			Docket No. THY002USPT01
Serial No. 09/804,769	Filing Date March 13, 2001	Examiner Jeffrey J. Restifo	Group Art Unit 3618
Applicant:	Cardinal et al.		
Invention:	CRUISE CONTROL SAFETY DISENGAGEMENT SYSTEM		

Box AF
Assistant Commissioner of Patents
Washington, D.C. 20231

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Dear Sir:

Enclosed for filing with the United States Patent and Trademark Office are the documents listed below.

Appeal

Appeal Brief

- ☒ An Appeal Brief filed pursuant to 37 C.F.R. 1.192 (in triplicate).
- ☒ A check to cover the filing fee for the Appeal Brief under 37 C.F.R. 1.17(c) in the amount of \$160.

Postcard

- ☒ A self-addressed return postcard in accordance with M.P.E.P. § 503 itemizing all of the above-referenced documents filed with the United States Patent and Trademark Office.

Deposit Account

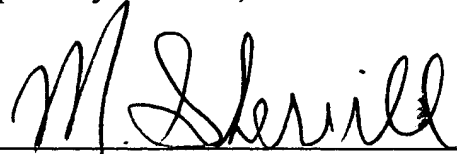
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Respectfully submitted,

Date

06 Jan 03

By



Michael S. Sherrill, #32,302

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M. Sherrill
Michael S. Sherrill

#8
Appeal
Brief
1-1603
SW

APPEAL BRIEF			Docket No. THY002USPT01
Serial No. 09/804,769	Filing Date March 13, 2001	Examiner Jeffrey J. Restifo	Group Art Unit 3618
Applicant:	Cardinal et al.		
Invention:	CRUISE CONTROL SAFETY DISENGAGEMENT SYSTEM		

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Washington, D.C. 20231

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Dear Sir:

This brief is filed on appeal from the decision of the Examiner mailed August 29, 2002 finally rejecting all pending claims in the above-referenced patent application.

This brief is being submitted in triplicate in accordance with 35 C.F.R. 1.192(a), along with the necessary filing fee as set forth in 35 C.F.R. 1.17(c).

REAL PARTY IN INTEREST

The real parties in interest in connection with this appeal are the named inventors Thomas W. Cardinal, John C. Thiry, and Daniel K. Westlund as inventor owners of the entire right, title, and interest in the application.

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RELATED APPEALS AND INTERFERENCES

Appellant and appellant's legal representative are unaware of any other appeal or interference which will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

STATUS OF CLAIMS

The application was filed on March 13, 2001. The application was originally filed with claims 1-17. Claims 1, 11, and 17 were amended in an Amendment & Response mailed on May 31, 2002. Claims 1-17 remain pending in the application. No claims have been allowed.

The rejection of claims 1-17 is appealed. A copy of the claims involved in this appeal is provided in the Appendix section of this Brief in accordance with 37 C.F.R. 1.192(c)(9).

STATUS OF AMENDMENTS

No amendment has been filed subsequent to final rejection of the appealed claims.

SUMMARY OF THE INVENTION

The Present Claimed Invention is directed to a cruise control swerve release system effective for automatically and directly disengaging a cruise control system when a vehicle experiences a threshold value of lateral acceleration indicative of a loss or impending loss of driver control.

ISSUES

Whether claims 1-17 are obvious over McCann (United States Patent No. 6,253,141) in view of Phung et al. (United States Patent No. 6,370,469).

GROUPING OF CLAIMS

Rejected claims 1-17 stand or fall together with respect to the obviousness rejection.

ARGUMENT

Objections/Rejections Under 35 U.S.C. § 103

1.0 *The Examiner has rejected claims 1-17 under 35 U.S.C. 103(a) as unpatentable over McCann in view of Phung et al.*

SUMMARY OF CITED REFERENCES

McCann (United States Patent No. 6,253,141) discloses a braking system for a motor vehicle (e.g., an anti-lock braking system) having a control system which manages operation of the braking system based upon several variables including lateral acceleration.

Phung et al. (United States Patent No. 6,370, 469) discloses a cruise control system for a motor vehicle which monitors lateral acceleration and adjusts the torque command value employed by the cruise control system dependant upon a comparison of actual lateral acceleration to predetermined minimum and maximum lateral acceleration limits.

SUMMARY OF CLAIMED INVENTION

The Present Claimed Invention is directed to a cruise control swerve release system effective for automatically and directly disengaging a cruise control system when a vehicle experiences a threshold value of lateral acceleration indicative of a loss or impending loss of driver control.

LEGAL BASIS

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must be found in the prior art, NOT in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). *See*, M.P.E.P. § 2143.

NEITHER McCANN NOR PHUNG ET AL.
DISCLOSE EACH AND EVERY ELEMENT
OF THE CLAIMED INVENTION.

McCann discloses a controller for an electric vehicle braking system which uses sensed lateral acceleration of the vehicle as one variable for increasing operational efficiency of the braking system. Phung et al. discloses a cruise control system which monitors lateral acceleration and compensates the torque command aspect of the cruise control system based upon a comparison of the sensed lateral acceleration relative to predetermined minimum and maximum lateral acceleration limits. The Present Claimed Invention disengages the cruise control system on a vehicle when excessive lateral acceleration is detected. Neither McCann nor Phung et al. disclose, teach, or suggest a system which **disengages** the cruise control system on a vehicle when the vehicle experiences a lateral acceleration which exceeds a threshold value.

The control systems of McCann, Phung et al. and the Present Claimed Invention are substantially different. By way of example, an automobile equipped with the control system of McCann and traveling with an activated cruise control which suddenly swerves over a median as the result of an abrupt incapacitation of the driver (*e.g.*, heart attack or seizure) and thereafter travels a relatively straight path into oncoming traffic, would continue to speed towards the oncoming traffic under the influence of the cruise control because the control system of McCann only controls operation of the brakes. The same automobile equipped with the control system of

Phung et al. would be initially slowed by the control system based upon detection of the sudden swerve, but would thereafter return control to the cruise control system and allow the vehicle to accelerate towards oncoming traffic. In contrast, the same vehicle equipped with the control system of the Present Claimed Invention would begin to slow down upon detection of the sudden swerve and would continue to slow because the control system deactivates the cruise control.

NEITHER MCCANN NOR PHUNG ET AL.
PROVIDES MOTIVATION TO MODIFY
THE PRIOR ART SYSTEM TO ACHIEVE
THE PRESENT INVENTION

In order to determine the propriety of an obviousness rejection, it is necessary to ascertain whether or not the reference or references motivate one of ordinary skill in the relevant art, having the reference or references before him, to make the proposed substitution, combination, or modification. In re Linter, 458 F.2d 1013, 173 U.S.P.Q. 560, 562 (CCPA 1972). Obviousness can only be established where there is some teaching, suggestion, or motivation in the prior art or in the knowledge generally available to one of ordinary skill in the art, to combine the references and produce the claimed invention. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992). *See*, M.P.E.P. §2143.01.

McCann discloses a controller for an electric vehicle braking system. Phung et al. discloses a controller for a cruise control system. While both use sensed lateral acceleration as a control variable, the systems control vastly disparate and unrelated features on a vehicle (*i.e.*, antilock braking system verses cruise control system). Persons skilled in the art do not routinely look to one of these features for purposes of constructing the other (*i.e.*, construction and operation of a braking system is substantially different from construction and operation of a cruise control system) and neither McCann nor Phung et al. provide any motivation to select a component from a cruise control system for incorporation into a braking system. The Examiner is employing forbidden hindsight to recreate the Present Claimed Invention from two otherwise unrelated references. Loctite Corp. v. Ultraseal Ltd., 781 F.2d 861, 873, 228 USPQ 90, 98 (Fed. Cir. 1985).

CONCLUSION

Applicant respectfully submits that claims 1-17 are in condition for allowance.

Respectfully submitted,

Date 06 Jan 03

By 

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APPENDIX

PENDING CLAIMS

*United States Patent Application
Serial No. 09/804,769*

1. A system for automatically disengaging a cruise control system on a motorized vehicle when the vehicle experiences a lateral acceleration in excess of a predetermined threshold value, comprising:
 - (a) a sensor mounted upon the vehicle for sensing lateral acceleration of the vehicle; and
 - (b) a controller in direct communication with the sensor and the cruise control system for disengaging the cruise control system when the sensor detects a lateral acceleration in excess of a predetermined threshold value.
2. The system of claim 1 wherein the motorized vehicle is a passenger vehicle.
3. The system of claim 1 wherein the motorized vehicle is a light duty truck.
4. The system of claim 1 wherein the motorized vehicle is a heavy duty truck.
5. The system of claim 1 wherein the motorized vehicle is a semi truck.
6. The system of claim 1 wherein the sensor is an accelerometer.
7. The system of claim 1 wherein the sensor is a pendulum.
8. The system of claim 6 wherein (i) the accelerometer is effective for generating an electrical lateral acceleration signal which is proportional to lateral acceleration experienced by the vehicle, and (ii) the controller is a microcontroller in electrical communication with the accelerometer and the cruise control system effective for

- (A) receiving the electrical lateral acceleration signal from the accelerometer, (B) comparing the value of the lateral acceleration signal to the predetermined threshold value, and (C) effecting disengagement of the cruise control system when the lateral acceleration signal exceeds the predetermined threshold value.
9. The system of claim 1 wherein the controller is a mechanical switch.
 10. The system of claim 7 wherein the controller is a mechanical switch.
 11. A safety system for a motorized vehicle equipped with a cruise control system, comprising:
 - (a) an accelerometer mounted upon the vehicle so as to sense lateral acceleration of the vehicle and generate a lateral acceleration signal having a value proportional to the sensed lateral acceleration; and
 - (b) a controller in direct electrical communication with the accelerometer and the cruise control system for disengaging the cruise control system upon receiving a lateral acceleration signal in excess of a predetermined threshold value.
 12. The system of claim 11 wherein the motorized vehicle is a passenger vehicle.
 13. The system of claim 11 wherein the motorized vehicle is a light duty truck.
 14. The system of claim 11 wherein the motorized vehicle is a heavy duty truck.
 15. The system of claim 11 wherein the motorized vehicle is a semi truck.
 16. The system of claim 11 wherein the controller is a microcontroller.
 17. A method for automatically disengaging a cruise control system on a motorized vehicle when the vehicle experiences a lateral acceleration in excess of a

predetermined threshold value, comprising:

- (a) sensing lateral acceleration of the vehicle; and
- (b) automatically and directly disengaging the cruise control system when the sensor detects a lateral acceleration in excess of a predetermined threshold value.